

## REMARKS

Claims 1-6, 10-13, 15-17, 19 and 20 remain pending in this application, claims 7-9, 14 and 18 having been cancelled by the above amendment. Of these claims, claims 1-4, 8, 9, 17-19 and 20 stand rejected under 35 USC §103(a) as being unpatentable over Altschul '848 in view of Altschul '393 and Mraz. Claim 5 stands rejected under 35 USC §103(a) as being unpatentable over Altschul '848 in view of Altschul '393, Mraz and Woo. Claim 6 stands rejected under 35 USC §103(a) as being unpatentable over Altschul '848 in view of Altschul '393, Mraz and Kawakami et al. Claims 7, 10, 11 and 14-16 stand rejected under 35 USC §103(a) as being unpatentable over Altschul '848 in view of Altschul '393, Mraz and Applicant's admitted prior art. Claim 12 stands rejected under 35 USC §103(a) as being unpatentable over Altschul '848 in view of Altschul '393, Mraz, Applicant's admitted prior art and Woo. Claim 13 stands rejected under 35 USC 103(a) as being unpatentable over Altschul '848 in view of Altschul '393, Mraz, Applicant's admitted prior art and Kawakami et al.

In view of the preceding Amendment and the following remarks, these rejections are traversed, and reconsideration of this application is respectfully requested.

By the above amendment, each of Applicant's independent claims 1, 10 and 17 will be amended to specifically state that the substrate is made of paper, the input and output diaphragms are made of paper and the battery is made from paper technologies. Further, these claims now specifically state that the printed circuit is patterned on the paper substrate with conductive ink. Applicant respectfully submits that a cellular telephone or business card telephone made out of all of these paper

components and having a conductive ink circuit is beyond the scope of what is fairly taught or suggested by the prior art of record.

MPEP 2143 states that in order for a *prima facie* case of obviousness to be established there must be some suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Also, the prior art references must teach or suggest all of the claimed limitations. Applicant respectfully submits that the Examiner has improperly combined the art of record to establish a *prima facie* case of obviousness in view of these standards.

Applicant submits that the references might separately teach some of the individual components of Applicant's all paper cellular telephone. However, Applicant submits that the references do not teach or suggest a cellular telephone including all of a paper substrate, paper input and output diaphragms, a battery made from paper technologies, and a printed circuit made with conductive ink patterned on the paper substrate.

U.S. Patent No. 5,965,848 issued to Altschul et al. discloses a disposable electronic device including a substrate 64 made of a dielectric material. The Examiner has suggested that the dielectric material could be paper, although Altschul et al. does not specifically state that. Assuming that the substrate fairly taught and suggested by Altschul '848 can be paper, Applicant submits that Altschul '848 fails to teach or suggest any of the remaining paper elements of Applicant's independent claims, particularly a paper input and output diaphragm, a battery made from paper technologies and a printed circuit patterned on the substrate with conductive ink. In fact, the circuit includes regular electrical components 80, the

battery 46 is a regular nine volt battery and the speaker 40 and the microphone 42 are regular metal components. The circuit trace 66 described in column 3, lines 29-34 is not conductive ink.

U.S. Patent No. 5,875,393 issued to Altschul et al. discloses a disposable wireless telephone. The Examiner has suggested that Altschul '393 discloses Applicant's claimed input diaphragm, output diaphragm and battery. However, Applicant submits that nowhere in Altschul '393 does it teach or suggest that these components of the Altschul wireless telephone are paper components or are based on paper technologies. The earphone 120, the microphone 122, the battery 140 are metal and the body 112 is not paper. Altschul also does not teach or suggest using conductive ink for the circuit. Therefore Altschul '393 fails to provide any of the teachings missing from Altschul '898 to make Applicant's independent claims 1, 10 and 17 obvious as amended.

The article "Thin, Flexible Battery Needs no Case" by Steven Mraz discloses a battery or power paper cell that can be fabricated by printing, pasting or laminating onto a paper substrate. However, as discussed in response to previous office actions, Mraz does not teach or suggest that the battery can be used in a paper telephone in combination with a paper substrate, paper input and output diaphragms and a printed circuit patterned by conductive ink.

U.S. Patent No. 6,317,086 issued to Woo discloses an antenna for a wireless apparatus. However, Woo does not teach or suggest any of a paper substrate, paper battery, paper diaphragms, conductive ink, etc. used in a paper phone. Therefore, Applicant submits that Woo cannot provide the teaching missing from Altschul et al. to make Applicant's claimed invention obvious.

U.S. Patent No. 5,933,783 issued to Kawakami et al. teaches a portable terminal that does not include any of a paper substrate, paper battery, or paper diaphragms, and therefore also fails to provide the teaching missing from Altschul '848 and Altschul '393 to make Applicant's claimed invention obvious.

Applicant also submits that he has not admitted that it was known prior to the invention to provide paper speakers in a cellular telephone that includes a paper substrate, conductive ink patterned on the paper substrate and a battery made from paper technologies.

As discussed above, Applicant submits that the combination of the several references cited by the Examiner do not provide the motivation and necessary teachings to be combined to make Applicant's independent claims 1, 10 and 17 obvious.

In view of the preceding amendment and remarks, it is respectfully requested that the §103(a) rejection be withdrawn.

It is now believed that this application is in condition for allowance. If the Examiner believes that personal contact with Applicant's representative would expedite prosecution of this application, the Examiner is invited to call the undersigned at his convenience.

Respectfully submitted,

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